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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/028,881 | 12/20/2001 | Richard P. Mackey | 42390P12247 | 4648 |

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR
LOS ANGELES, CA 90025

EXAMINER

DALEY, CHRISTOPHER ANTHONY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2111

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,881

Applicant(s)

MACKEY, RICHARD P.

Examiner

Christopher A Daley

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1- 18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1 – 18 are examined.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-18 rejected under 35 U.S.C. 102(e) as being anticipated by Martwick (US6336158).

4. As to claims 1,7, and 13, Martwick discloses a system, apparatus, and method comprising:

A bridge (108, Figure 1) coupled between a first bus (102) and a second data bus (103); a target device (112) coupled to the first data bus (102) at a data bus address; a decoder, (where bridge device 108 includes a decoder, Col. 4, line 66 – Col. 5, line 2) to provide bus segment information to the bridge (108) independently of response to a bus transaction on the second data bus initiated by a source device (110);

Wherein the bridge (108) comprises logic to forward the bus transaction on the first data bus (102) to the target device (110) based on the bus segment information. (The bridge 108 has the circuitry to enable forwarding of bus transactions between source and targets, Col. 5, lines 2 -9).

As to claims 2, 8, and 14, Martwick discloses a system, method, and apparatus wherein the bridge further comprises:

Logic to forward bus transaction on the first data bus to the second data bus (Bridge 108 enable bi-directional communication between devices coupled to either side of the bridge, Col. 5, lines 2 – 9)

Each forwarded transaction being addressed to a range of data bus addresses on the first data bus; (Col. 6, lines 40 – 48, Figure 5)

Logic to combine bus segment information from the decoder with a portion of a data bus address in the range of data bus addresses to provide a data bus address for a bus transaction forwarded to the first data bus. (When a source initiates a bus transaction, the transaction address is sent to the decoder portion of the bridge device (108). Said decoder checks to see if this address is in the I/O map cache. If it is not, a process is followed (Figure 7) to retrieve relevant decode information. If it is present in the I/O map cache (106), the MSBs to point to a unique byte located in the cache memory. That byte contains the I/O decode map. The single bit with that map is selected by the three LSBs of the transaction address. For instance the first bit would be selected should the LSB be 000, or the 8th. Bit would be selected should the LSB be 111. (Col. 7, lines 5 – 55, Figure1, Figure 5).

5. As to claims 3,9, and 15, Martwick discloses a system, method, and apparatus wherein the bus segment information comprises a first portion of the data bus address of the target device. Martwick discloses in Figure 5 an I/O map decode system in which the MSBs is used as a pointer to locate the first portion of device decode information in the I/O memory cache bank (Col. 7, lines 24 – 30, Figure 5).

6. As to claims 4, 10, and 16, Martwick discloses a system, method, and apparatus where each data bus address is comprises of a plurality of MSBs, and a plurality of LSBs, and wherein the bridge further comprises the logic to combine the LSBs of the address with the bus segment information to provide the data bus address of the target device on the first bus. (Once the unique byte within the I/O memory cache has been accessed as stated in claim 2 above, the LSB address bits are used to choose which bit within the byte should be used, Col. 7, lines 35 – 40, Figure 5).

7. As to claims 5, 11, and 17, Martwick discloses that the bridge will forward a data bus transaction to the second data bus based upon a single value expressed in the most significant bits. (The LSB address of the device to receive the transaction is used to complete the final decode as it points to the MSB bit in the I/O decode map output byte. This selects the unique target to receive the transaction, Col. 7, lines 40 – 53).

8. As to claims 6,12, and 18, Martwick discloses a system, method, and apparatus wherein the system further comprise of one or more sources (110, and 111 Figure 1) to initiate a bus transaction on the second data bus having data bus addresses within the range of data bus address (I/O Decode Map 106, Figure 5), and wherein the source device (110) is coupled to the decoder (located in 108) to provide bus segment information in response to initiating a bus transaction on the second bus having a data address within the range of data addresses (The Bridge enables bi-directional communication between devices coupled to either side of the bridge and uses the same method as shared above to initiate and forward bus transactions from the second bus (103) to the first bus 102, Col. 5, lines 2 – 9).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A Daley whose telephone number is 703 605 4214. The examiner can normally be reached on 9 a.m. – 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703 305 4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CAD

CAD
June 24, 2004

Tim Vo

TIM VO
PRIMARY EXAMINER